

REMARKS

Claims 1-9 and 11-14 are pending in this application. Claims 1-3, 7-9, and 11-14 are rejected and claim 4 was objected to. Claims 1, 3, 4, 8, 9, 13, and 14 are amended. Claim 10 is cancelled. No new matter is added in the claim amendments. In view of the claim amendments and the following remarks, Applicants respectfully request that the rejections and objections to these claims be withdrawn.

I. Changes to the Title

The Examiner objected to the title as allegedly not descriptive. The title has been changed to "Vacuum Cleaner With Level Measurement." Applicants respectfully request that this objection be withdrawn.

II. Objections to Claims and Rejections under 35 U.S.C. § 112

Claim 4 is objected to because the as-filed claim included the limitation that "the float guide has a opening" Claim 4 is amended to "the float guide has an opening ..." to conform with the rules of English grammar. Applicants respectfully request that the objection to claim 4 be withdrawn.

Claims 3-4, 7-8, and 13 are rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 3, 8, and 13 have been amended to correct the antecedent basis deficiencies noted by the Examiner, and Applicant respectfully asserts that the claims satisfy the requirements of 35 U.S.C. § 112, second paragraph. Applicants respectfully request that these rejections be withdrawn.

III. Rejections to Claims under 35 U.S.C. § 102

Claims 1-2, 9, 11, and 14 are rejected under 35 U.S.C. § 102(b) as anticipated by US Patent No. 6,237,186 to Griffiths ("Griffiths"). Applicants respectfully traverse this rejection. Griffiths does not disclose all of the limitations of independent claims 1 and 14. Specifically, Griffiths does not disclose or suggest a protective structure within the collection chamber and at least partially surrounding at least a portion of the controller,

as required by these claims. Griffiths discloses a vacuum system that includes a canister (12) that encloses a pump (36), a cyclonic separator (40), a collecting cone (54), and a float switch (68) that pivots about a tie (76) as the liquid level within the canister (12) changes. In operation, liquid enters the canister (12) and flows around the cyclonic separator (40), which separates the liquid from any entrained air. Then the liquid flows through the collecting cone (54) and a filter (64) provided below the collecting cone (54) until the liquid collects at the lower end of the canister (12).

The Griffiths float switch (68) (best shown in FIG. 2, and described in col. 6, ll. 28-64) does not include any structure that could rationally be considered to be a protective structure within the collection chamber and at least partially surrounding at least a portion of the controller. With reference to FIG. 2 of Griffiths, the float switch (68) floats within the canister (12) and is not surrounded by any protective structure within the canister (12). In contrast, the float switch (68) floats within the volume of liquid within the bottom of the canister (12) and is only constrained to pivot within the canister (12) by the tie (76). While the tie (76) constrains the motion of the float switch (68), it does not surround the float switch (68). Because Griffiths does not disclose or suggest all of the limitations of claims 1 and 14, Applicants respectfully request that the rejections of claims 1-2 and 14 be withdrawn.

Applicants have amended claim 9 to include the limitations of claim 10, which is allowable. Accordingly, Applicants respectfully request the rejection of claims 9 and 11 (which depended from claim 9) be withdrawn.

Claims 9 and 11 were additionally rejected under 35 U.S.C. § 102(b) as anticipated by US Patent No. 3,543,325 to Hamrick. Because claim 9 is amended to include the limitations of allowable claim 10, Applicants respectfully request that this rejection be withdrawn.

IV. Rejections Under 35 U.S.C. § 103(a)

Claims 3 and 7 are rejected under 35 U.S.C. § 103(a) as obvious over the combination of Griffiths in view of US Patent No. 5,201,095 to Choi ("Choi"). The Office Action is internally inconsistent with respect to this rejection. The Office Action Summary page lists claims 4-6 as objected to, and the Allowable Subject Matter section

on page 6 of the office action also lists these claims as objected to, while the detailed explanation of this obviousness rejection on page 5, paragraph 11 lists claims 4-6 as rejected. Paragraph 11, however, does not discuss any of the limitations of claims 4-6 with respect to Griffiths or Choi. Accordingly, Applicants believe that the statement that claims 4-6 are rejected on page 5 of the Office Action was in error. Accordingly, Applicants only discuss the rejections of claims 3 and 7 herein.

Applicants respectfully traverse the obviousness rejection of claims 3 and 7. As discussed above, Griffiths does not disclose or suggest a protective structure within the collection chamber and at least partially surrounding at least a portion of the controller. Choi does not disclose or suggest this structure. While Choi discloses a float (31) that moves within a float container (3), the float (31) does not form any portion of a controller for stopping the suction source when a level of liquid in the collection chamber rises to a predetermined level. In contrast, the float (31) moves within the float container (3) to selectively open and close a central hole within the base (21) that supports a vacuum pump (2). As the level rises within the tank (1) the float (31) similarly rises until the level approaches the base (21) when the float (31) extends through the central hole in the base (21) to prevent water from flowing above the base (21). See col. 3, ll. 30-43, claim 1. While the float (31) moves to prevent liquid flow to the vacuum pump (2) through the base (21), the position of the float (31) has no effect on the operation of the suction source, or the vacuum pump (2). In contrast, the Choi discloses a motor controlling apparatus that includes a limit switch (6) that translates with biasing force of a spring (43) and a piston (44).

Additionally, because the structure disclosed in Choi to control the operation of the vacuum pump (2) is not disposed within the collecting tank (1) portion of the Choi vacuum, Choi cannot rationally be asserted to disclose or suggest a protective structure within the collection tank and to at least partially surround at least a portion of the controller. In contrast, the Choi motor controlling apparatus is provided above the base (21) and not within the volume of liquid stored in the collection tank (1). See Choi, col. 3, ll. 44-64; FIG. 1. Because Choi does not disclose all of the limitations of claim 1, much less the use of a protective structure within the collection tank to at least partially

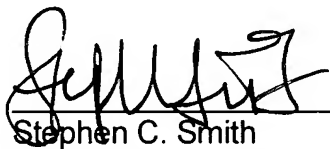
surround at least a portion of the controller, Applicants respectfully request that the rejection of claims 3 and 7 be withdrawn.

Claim 12 was separately rejected as obvious in view of each of Griffiths and Hamrick. Claim 12 depends from independent claim 9, which is allowable as amended to include the limitations of allowable claim 10. Accordingly, Applicants respectfully request that this rejection be withdrawn.

SUMMARY

Claims 1-9 and 11-14 are patentable. Applicants respectfully request the Examiner grant early allowance of this application. The Examiner is invited to contact the undersigned attorney for the Applicants at (312) 222-8124 if such communication would expedite this application.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Stephen C. Smith", is written over a horizontal line.

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